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quick facts on...

Lake Okeechobee Phosphorus Study Project Update

APRIL 2002

The South Florida Water Management District is a regional, governmental agency that oversees the water resources in the southern half of the state. It is the oldest and largest of the state's five water management districts.

Our Mission is to manage and protect water resources of the region by balancing and improving water quality, flood control, natural systems, and water supply.

FOR MORE INFORMATION ABOUT OUR AGENCY

Visit our web site at www.sfwmd.gov or call 561-686-8800 or FL WATS 1-800-432-2045.

APRIL 4, 2002

PUBLIC MEETING ANNOUNCED

See Reverse Side for Details

Study Background and Purpose

This fact sheet is the third in a series dedicated to the Lake Okeechobee Sediment Management Feasibility Study initiated by the District in the fall of 2000. The primary purpose of the study is to analyze all of the possible options for reducing internal phosphorus loading in the lake.

The condition of Lake Okeechobee is a critical factor in the efforts to restore the world-renowned Everglades and maintain an adequate water supply for South Florida's people, industry, and agriculture. The lake typically contains more than one trillion gallons of water and serves as the headwaters to the Everglades as well as the Caloosahatchee River and several canals. Over the past century, water quality in Lake Okeechobee has changed dramatically, largely as a result of increased population and farming stresses in the lake basin. The increased intensity of human settlements and agricultural activities led to substantial increases in the level of nutrients – in particular phosphorus – entering the lake through its tributaries and in stormwater runoff.

All that additional phosphorus is a problem for Lake Okeechobee because it settles in the sediment at the bottom of the lake where it can be stirred up over and over again by wind and waves. When the sediment is stirred up, the excess phosphorus is released back into the lake water. This process, technically called internal phosphorus loading, is a concern. It can lead to decreased water quality; more frequent blooms of blue-green algae and other problems that may affect drinking water supplies; interfere with recreation and commercial activities; and harm plants and wildlife.

Status of the Study

The Sediment Management Feasibility Study is broken out into five main tasks:

Task 1. Development of Goals and Performance Measures

Task 2. Development of Alternatives

Task 3. Work Plan for the Evaluation of Alternatives

Task 4. Evaluation of Alternatives

Task 5. Stakeholder Prioritization of Alternatives

Tasks 1 and 2 have been completed, and the project team is now focused on Task 3.

Goals of the Study

Task 1 of the feasibility study focused on the development of 5 overall goals for the project and 26 related performance measures. These goals, established to specifically identify the desired outcomes of any sediment management strategy ultimately selected by the District with public input, are to maximize:

1. Water Quality Improvements,
2. Engineering Feasibility and Implementability,
3. Cost Effectiveness,
4. Environmental Benefits, and
5. Socioeconomic Benefits

Detailed descriptions of these five goals are in the Goals and Performance Measures report finalized in June 2001. Visit the project website (see address on back) to read the report.

Development of Alternatives

During Task 2, the project team analyzed 35 different sediment management technologies to identify the ones that could be used as building blocks to put together a range of potentially feasible and effective sediment management alternatives. After a detailed technical assessment, (described in the Development of Alternatives report finalized in October 2001 and available on the project website), the team developed seven alternatives that, if implemented, could possibly meet the five goals of the study. These alternatives, which are only at the conceptual stage will be developed in more detail in Task 4 and then evaluated against the 5 goals and 26 performance measures.

The alternatives under consideration are:

1. No In-Lake Action,
2. In-Lake Chemical Treatment (single application),
3. Long-Term Periodic In-Lake Chemical Treatment,
4. Dredging,
5. In-Lake Chemical Treatment followed by Dredging,
6. Dredging followed by In-Lake Chemical Treatment, and
7. Long-Term Periodic Dredging from In-Lake Sumps followed by In-Lake Chemical Treatment

There are a variety of "sub-alternatives" associated with alternatives 4 through 7 in order to address possible options for sediment disposal or reuse. For details, see the Development of Alternatives report, available on the project website.

Evaluation of Alternatives

The current focus of the study is on Task 3, the development of the Work Plan which describes how the alternatives will be evaluated against the goals and performance measures. The discussions in the Work Plan, currently in draft form, identify specific targets, evaluation or assessment tools, critical data, and other elements that will form the basis of the detailed evaluation. It is important to note that Task 3 is dedicated strictly to planning; the actual evaluations will not be carried out until Task 4, which will take place over the next year. The fourth fact sheet in this series, available sometime in early 2003, will present an update on the evaluation process. In the meantime, watch the project web site for details.

Public Meeting Scheduled

Public and stakeholder input throughout the feasibility study is critical to its success. To give members of the community and representatives of various local, state, and federal agencies the opportunity to talk to project team members and provide feedback on the study, the District is planning a public meeting for Thursday, April 4, 2002. Summaries of the project status and the draft Work Plan will be presented, followed by a question and answer session.

When: April 4, 2002
6:30 p.m. – 8:00 p.m.

Where: Doyle Connor Agricultural Center
900 U.S. Highway 27
Moore Haven, Florida

– FOR MORE INFORMATION –

To learn more about the Lake Okeechobee Sediment Management Feasibility Study and review either the final Goals and Performance Measures report or the draft Development of Alternatives report, visit the project web site at http://www.sfwmd.gov/org/wrp/wrp_okee/projects/sedimentmanagement.html or contact Jorge Patino, the District's project manager at jpatino@sfwmd.gov or 561-682-2731.

South Florida Water Management District
3301 Gun Club Road • P.O. Box 24680
West Palm Beach, FL 33416-4680
MSC 4430